



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,231	07/24/2001	Jack Regula	136.1005.01	4335

22883 7590 01/12/2004
SWERNOFSKY LAW GROUP PC
P.O. BOX 390013
MOUNTAIN VIEW, CA 94039-0013

EXAMINER

KNOLL, CLIFFORD H

ART UNIT PAPER NUMBER

2112

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,231

Applicant(s)

REGULA ET AL.

Examiner

Clifford H Knoll

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2112

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Specification contains extraneous information (page 1, lines 1-12). The names of inventors and assignment have been submitted as separate documents. It is requested that Applicant deletes this information from the specification at the earliest convenience.

Specification is objected to because information on copending application is missing (page 7, lines 8-11). Applicant is requested to amend this reference at the earliest possible convenience.

Priority

It is noted that this application appears to claim subject matter disclosed in a co-pending application listed in the specification at page 7, lines 8-12. A reference to the co-pending application must be inserted as the first sentence of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e) or 120. See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. Also, the current status of all nonprovisional parent applications referenced should be included.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the

Art Unit: 2112

prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2112

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 19-21, 23-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, the recitation of "has a dedicated track which it can use to send information to other stations" is unclear because it is not clear what step limitation is intended from what is apparently apparatus recitation.

In claim 20, the use of a "packet based communication protocol" is not clear because its relationship with the communicating steps of the parent claim cannot be determined.

In claim 21, the "components include." recitation is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 23, all recitation of "performed by..." is unclear because it is not clear what further step limitation is intended by the apparatus recitation.

In claim 24, the recited connection is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 25, the "comprises plural smaller multiplexors distributed" is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 26, the "arbiter is connected..." recitation is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 27, the "comprises plural smaller multiplexors distributed" is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 28, the recitation of queues is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 29, the first-in-first out register is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 30, the recited queue is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 31, the first-in-first out register is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 32, the recitation of queues is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 33, the apparatus means plus function recitation is unclear because it is not clear what step limitation is intended by the apparatus recitation.

In claim 34, the "components are coupled" is unclear because it is not clear what step limitation is intended by the apparently apparatus recitation.

In claim 35, the recitation of smaller multiplexors and pipeline storage elements is unclear because it cannot be determined what step limitation is intended by the apparatus recitation.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 21 and 23-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The instant claims appear to recite both method steps and apparatus limitation.

"[A] claim which is intended to embrace both product or machine and process is precluded by language of 35 USC 101, which sets forth statutory classes of invention in alternative only, and is also invalid under 35 USC 112, second paragraph, since claim which purports to be both machine and process is ambiguous and therefore does not particularly point out and distinctly claim subject matter of invention." (See *Ex parte Lyell* 17 USPQ2d 1548).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Carey (US 6460174).

Regarding claims 1 and 38, Carey discloses an on-chip communication bus and a plurality of stations that couple on-chip components to the bus (e.g., col. 2, lines 33-

36), where each station has a dedicated track which it can use to send information to other stations (e.g., col. 2, lines 29-30).

Regarding claim 2, Carey also discloses packet based communication (e.g., col. 4, lines 40-42).

Regarding claim 3, Carey also discloses an inter-integrated circuit component (e.g., col. 2, lines 36-39).

Regarding claim 4, Carey also discloses an initiator that requests permission to transmit outgoing data over a track to another station and that transmits the outgoing data (e.g., col. 5, lines 1-4), an arbiter that evaluates requests and selects a track (e.g., col. 2, lines 52-57), and a target that receives the incoming data (e.g., col. 2, line 40).

Regarding claim 5, Carey also discloses a grant multiplexor for selecting a grant line (e.g., col. 2, lines 52-55).

Regarding claim 6, Carey also discloses plural smaller multiplexors distributed across the chip (e.g., col. 2, lines 53-54, "more requests").

Regarding claim 7, Carey also discloses the arbiter connected a track multiplexor for selecting a track (e.g., col. 2, lines 52-55).

Regarding claim 8, Carey also discloses plural smaller multiplexors distributed (e.g., col. 2, lines 53-54, "more requests").

Regarding claim 9, Carey also discloses a source queue (e.g., Figure 2, "22").

Regarding claim 10, Carey also discloses a first-in-first out register (e.g., col. 11, line 61).

Regarding claim 11, Carey also discloses a destination queue for incoming data (e.g., Figure 4, “28”).

Regarding claim 12, Carey also discloses a first-in-first out register (e.g., col. 14, line 1).

Regarding claim 13, Carey also discloses a source queue and destination queue (e.g., Figure 2, “22”, Figure 4, “28”).

Regarding claim 14, Carey also discloses the source and destination queues serve to separate a first clock domain for the on-chip communication bus from a second clock domain for one of the plurality of on-chip components (e.g., col. 13, lines 64-67, col. 14, lines 8-9).

Regarding claim 15, Carey also discloses more than one component coupled to the bus through one of the stations (e.g., col. 2, lines 36-39).

Regarding claim 16, Carey also discloses smaller multiplexors distributed (e.g., col. 12, lines 3-4), pipeline storage elements to maintain transmission speed (e.g., col. 9, lines 37-41).

Regarding claim 17, Carey also discloses a watchdog circuit that determines if its station has gone offline (e.g., col. 5, lines 56-58).

Regarding claim 18, Carey also discloses if the station has gone offline that watchdog station informs a controller connected to the system (e.g., col. 5, lines 57-58, “presented to the arbiter 38”).

Regarding claim 19, Carey discloses a method of communicating between a plurality of stations coupled to on-chip components, and communicating between

stations using an on-chip communication bus (e.g., col. 2, lines 33-36), where each station has a dedicated track which it can use to send information to other stations (e.g., col. 2, lines 29-30).

Regarding claim 20, Carey also discloses packet based communication (e.g., col. 4, lines 40-42).

Regarding claim 21, Carey also discloses an inter-integrated circuit component (e.g., col. 2, lines 36-39).

Regarding claim 22, Carey also discloses sending a request from a first station to a second station, evaluating the request and sending a grant signal (e.g., col. 5, lines 1-4), selecting a track (e.g., col. 2, lines 52-57), sending and receiving the data at the second station (e.g., col. 2, line 40).

Regarding claim 23, Carey also discloses sending the request is performed by an initiator, evaluating is performed by an arbiter at the second station, selecting the track is performed by the arbiter at the second station (e.g., col. 5, lines 1-4), sending the data or command is performed by the initiator and receiving the data is performed by a target at the second station (e.g., col. 2, line 40).

Regarding claim 24, Carey also discloses a grant multiplexor for selecting a grant line (e.g., col. 2, lines 52-55).

Regarding claim 25, Carey also discloses plural smaller multiplexors distributed across the chip (e.g., col. 2, lines 53-54, "more requests").

Regarding claim 26, Carey also discloses the arbiter connected a track multiplexor for selecting a track (e.g., col. 2, lines 52-55).

Regarding claim 27, Carey also discloses plural smaller multiplexors distributed (e.g., col. 2, lines 53-54, "more requests").

Regarding claim 28, Carey also discloses a source queue (e.g., Figure 2, "22").

Regarding claim 29, Carey also discloses a first-in-first out register (e.g., col. 11, line 61).

Regarding claim 30, Carey also discloses a destination queue for incoming data (e.g., Figure 4, "28").

Regarding claim 31, Carey also discloses a first-in-first out register (e.g., col. 14, line 1).

Regarding claim 32, Carey also discloses a source queue and destination queue (e.g., Figure 2, "22", Figure 4, "28").

Regarding claim 33, Carey also discloses the source and destination queues serve to separate a first clock domain for the on-chip communication bus from a second clock domain for one of the plurality of on-chip components (e.g., col. 13, lines 64-67, col. 14, lines 8-9).

Regarding claim 34, Carey also discloses more than one component coupled to the bus through one of the stations (e.g., col. 2, lines 36-39).

Regarding claim 35, Carey also discloses smaller multiplexors distributed (e.g., col. 12, lines 3-4), pipeline storage elements to maintain transmission speed (e.g., col. 9, lines 37-41).

Regarding claim 36, Carey also discloses a watchdog circuit determining if its station has gone offline (e.g., col. 5, lines 56-58).

Regarding claim 37, Carey also discloses determining the station has gone offline and informing a controller connected to the system (e.g., col. 5, lines 57-58, "presented to the arbiter 38").

4. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Apostol (US 2002/0159474).

Regarding claims 1 and 38, Apostol discloses an on-chip communication bus and a plurality of stations that couple on-chip components to the bus (e.g., paragraph [0030]), where each station has a dedicated track which it can use to send information to other stations (e.g., paragraph [0021], "sets of request lines").

Regarding claim 2, Apostol also discloses packet based communication (e.g., paragraph [0032]).

Regarding claim 3, Apostol also discloses an inter-integrated circuit component (e.g., paragraph [0024]).

Regarding claim 4, Apostol also discloses an initiator that requests permission to transmit outgoing data over a track to another station and that transmits the outgoing data (e.g., paragraph [0030]), an arbiter that evaluates requests and selects a track (e.g., paragraph [0032], "requesting arbiter"), and a target that receives the incoming data (e.g., paragraph [0035]).

Regarding claim 5, Apostol also discloses a grant multiplexor for selecting a grant line (e.g., paragraph [0060]).

Regarding claim 6, Apostol also discloses plural smaller multiplexors distributed across the chip (e.g., paragraph [0061]).

Regarding claim 7, Apostol also discloses the arbiter connected a track multiplexor for selecting a track (e.g., paragraph [0060]).

Regarding claim 8, Apostol also discloses plural smaller multiplexors distributed (e.g., paragraph [0061]).

Regarding claim 9, Apostol also discloses a source queue (e.g., paragraph [0035]).

Regarding claim 10, Apostol also discloses a first-in-first out register (e.g., paragraph [0037]).

Regarding claim 11, Apostol also discloses a destination queue for incoming data (e.g., paragraph [0035]).

Regarding claim 12, Apostol also discloses a first-in-first out register (e.g., paragraph [0037]).

Regarding claim 13, Apostol also discloses a source queue and destination queue (e.g., paragraph [0035]).

Regarding claim 14, Apostol also discloses the source and destination queues serve to separate a first clock domain for the on-chip communication bus from a second clock domain for one of the plurality of on-chip components (e.g., paragraph [0024], "different clock speeds").

Art Unit: 2112

Regarding claim 15, Apostol also discloses more than one component coupled to the bus through one of the stations (e.g., paragraph [0024], “multi-function subsystems”).

Regarding claim 16, Apostol also discloses smaller multiplexors distributed (e.g., paragraph [0061], pipeline storage elements to maintain transmission speed (e.g., paragraph [0037])).

Regarding claim 17, Apostol also discloses a watchdog circuit that determines if its station has gone offline (e.g., paragraph [0030]).

Regarding claim 18, Apostol also discloses if the station has gone offline that watchdog station informs a controller connected to the system (e.g., paragraph [0030]).

Regarding claim 19, Apostol discloses a method of communicating between a plurality of stations coupled to on-chip components, and communicating between stations using an on-chip communication bus (e.g., paragraph [0030]), where each station has a dedicated track which it can use to send information to other stations (e.g., paragraph [0021], “sets of request lines”).

Regarding claim 20, Apostol also discloses packet based communication (e.g., paragraph [0032]).

Regarding claim 21, Apostol also discloses an inter-integrated circuit component (e.g., paragraph [0024]).

Regarding claim 22, Apostol also discloses sending a request from a first station to a second station, evaluating the request and sending a grant signal (e.g., paragraph

[0030]), selecting a track, sending and receiving the data at the second station (e.g., paragraph [0021], "sets of request lines").

Regarding claim 23, Apostol also discloses an initiator that requests permission to transmit outgoing data over a track to another station and that transmits the outgoing data (e.g., paragraph [0030]), an arbiter that evaluates requests and selects a track (e.g., paragraph [0032], "requesting arbiter"), and a target that receives the incoming data (e.g., paragraph [0035]).

Regarding claim 24, Apostol also discloses a grant multiplexor for selecting a grant line (e.g., paragraph [0060]).

Regarding claim 25, Apostol also discloses plural smaller multiplexors distributed across the chip (e.g., paragraph [0061]).

Regarding claim 26, Apostol also discloses the arbiter connected a track multiplexor for selecting a track (e.g., paragraph [0060]).

Regarding claim 27, Apostol also discloses plural smaller multiplexors distributed (e.g., paragraph [0061]).

Regarding claim 28, Apostol also discloses a source queue (e.g., paragraph [0035]).

Regarding claim 29, Apostol also discloses a first-in-first out register (e.g., paragraph [0037]).

Regarding claim 30, Apostol also discloses a destination queue for incoming data (e.g., paragraph [0035]).

Regarding claim 31, Apostol also discloses a first-in-first out register (e.g., paragraph [0037]).

Regarding claim 32, Apostol also discloses a source queue and destination queue (e.g., paragraph [0035]).

Regarding claim 33, Apostol also discloses the source and destination queues serve to separate a first clock domain for the on-chip communication bus from a second clock domain for one of the plurality of on-chip components (e.g., paragraph [0024], "different clock speeds").

Regarding claim 34, Apostol also discloses more than one component coupled to the bus through one of the stations (e.g., paragraph [0024], "multi-function subsystems").

Regarding claim 35, Apostol also discloses smaller multiplexors distributed (e.g., paragraph [0061], pipeline storage elements to maintain transmission speed (e.g., paragraph [0037]).

Regarding claim 36, Apostol also discloses a watchdog circuit determining if its station has gone offline (e.g., paragraph [0030]).

Regarding claim 37, Apostol also discloses informing a controller connected to the system (e.g., paragraph [0030]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17-18 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carey as applied above in claims 1 and 19, respectively, in view of Apostol.

Regarding claims 17 and 36, Carey fails to disclose a particular alternative embodiment of a watchdog; however this watchdog circuit is disclosed by Apostol. Apostol discloses a watchdog circuit that determines if its station has gone offline (e.g., paragraph [0030], "subsystem 102* is busy"). It would be obvious to combine Apostol with Carey because Carey discloses a data router such as that of Carey and teaches the advantage of using a watchdog circuit when a station is busy. Therefore it would be obvious to one of ordinary skill in the art to combine Apostol with Carey at the time the invention was made.

Regarding claims 18 and 37, Carey also discloses if the station has gone offline that the watchdog station informs a controller connected to the system (e.g., paragraph [0030], "retry later").

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Norman (US 2002/0181455) also discloses an on-chip communication bus with plural tracks and stations, with dedicated tracks to send information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

chk



XUAN M. THAI
PRIMARY EXAMINER
TC2102